



Monitoring, Early Warning and Communication System

Ministry of Transport

2009.12

Main content

Monitoring and early warning

- **Monitoring facilities**
- **Early-warning mechanism**

Communication system

- **Equipments and network**
- **Application of emergency response**

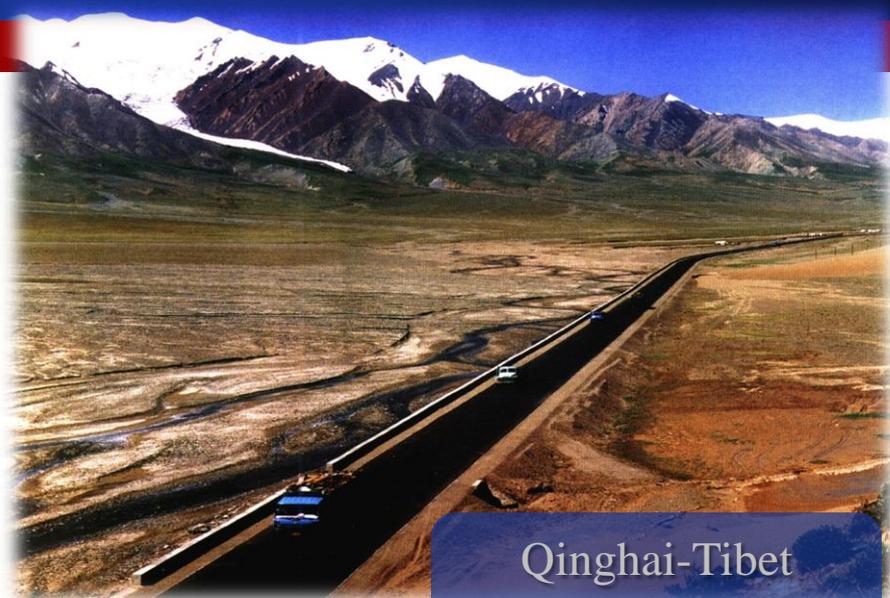
Important public infrastructure



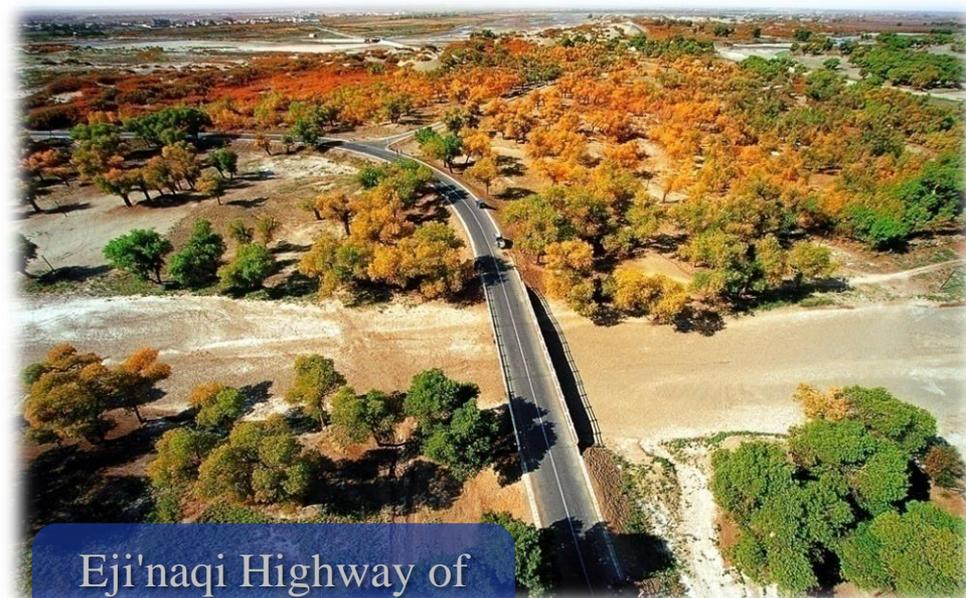
Related closely to national safety and stability



Qinghai-Tibet Highway



Qinghai-Tibet Highway



Eji'naqi Highway of Inner Mongolia



Xinjiang Expressway

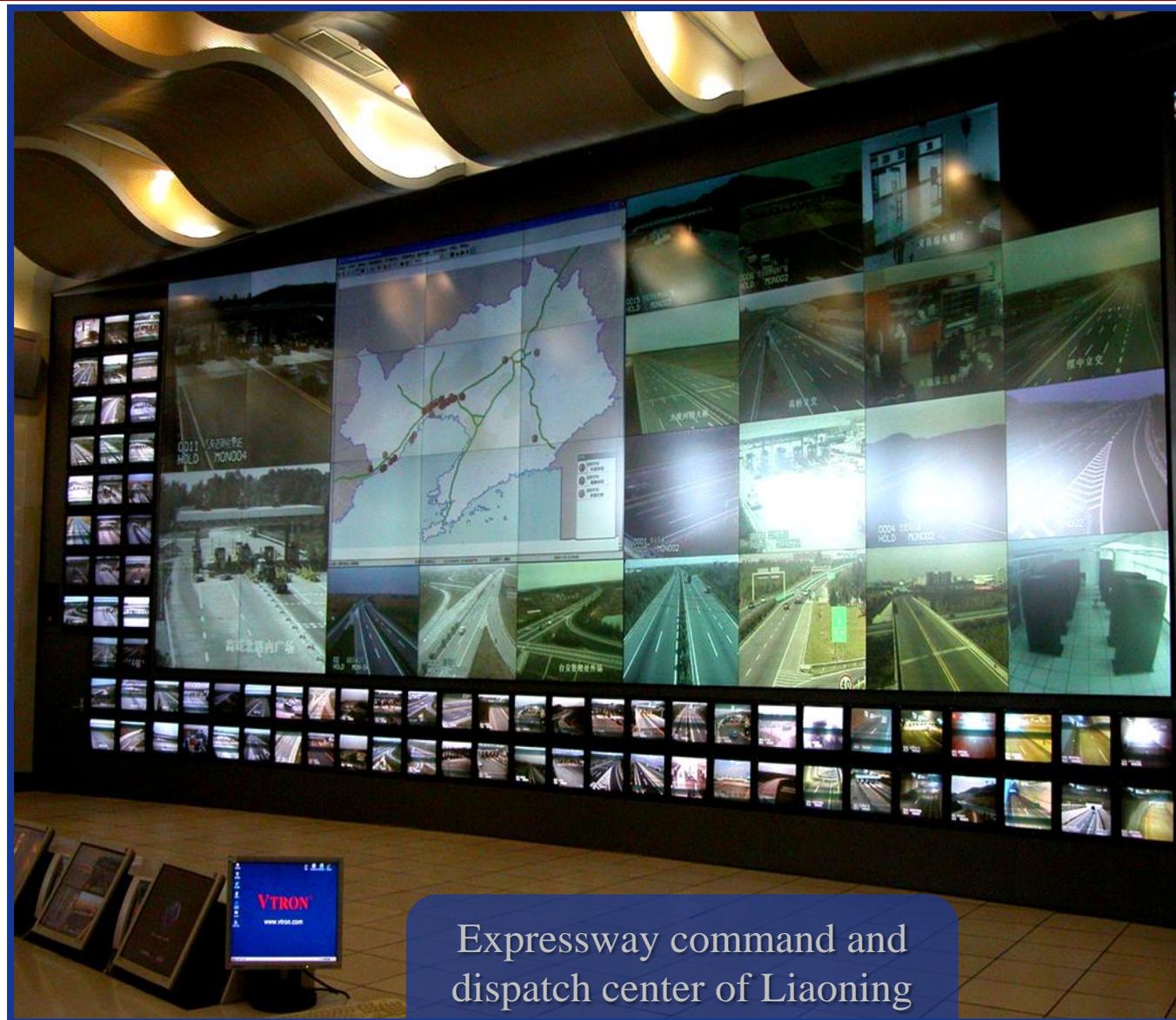
Highway operation monitoring



Bridge monitoring center



Online monitoring and regional joint action



Expressway command and dispatch center of Liaoning Province



Road information report system

中国公路信息服务网 - Internet Explorer

http://www.chinahighway.gov.cn/

中国公路信息服务网

中国公路信息服务网

CHINA HIGHWAY INFORMATION SERVICE

2008年3月31日 星期一 | 首页 | 全国路况 | 公路气象 | 公路地图 | 出行常识 | 信息订阅 | 交通部主页

本站目前处于试运行中，欢迎您提出建议

公路信息搜索

出行路线

地点查询

路线信息

收费站点

开始查询

起点 北京

终点 重庆

路况快讯

广东省 G030线京珠国道主干线粤境北段小塘至甘塘高速公路公路，因交通事故(原因)通行受阻，预计2008-3-31 20:30:00恢复通车。

更多...

各地路况查询: 北京 查询



交通地图

交通气象

路况信息管理

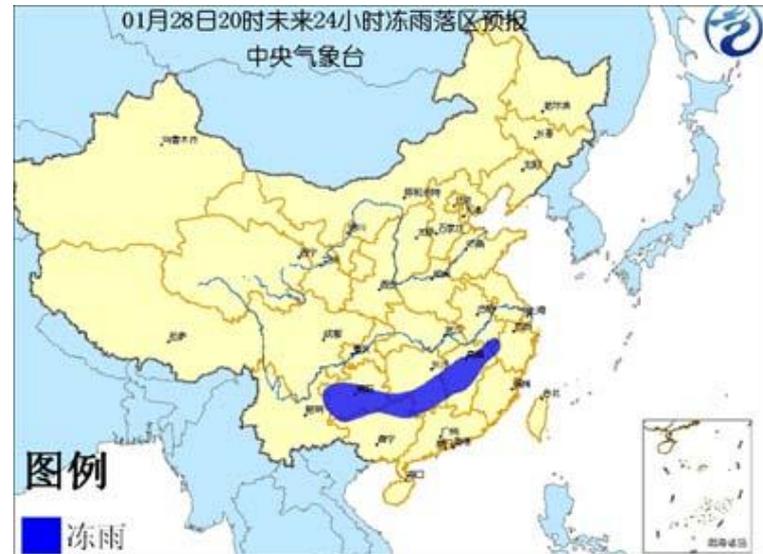
各省公路服务站点

北京 天津 河北 山西 内蒙 辽宁 吉林 黑龙江 上海 江苏 浙江 安徽 福建 江西 山东 河南 湖北 湖南 广东 广西 海南 重庆 四川 贵州 云南 西藏 陕西 甘肃 青海 宁夏 新疆 兵团



Monitoring and forecasting mechanism

- ❖ The Ministry of Transport and the State Meteorological Administration have signed two agreements to strengthen the communication and cooperation with the meteorological departments and effectively develop the information collection, forecasting and early warning of severe weather.



Monitoring and forecasting mechanism

- ❖ Have established mutual exchange of information and joint action mechanism with the departments such as oceanography and geological to regularly release disaster early warning.



Main content

Monitoring and forecasting

- **Monitoring equipments**
- **Early warning mechanism**

Communication system

- **Equipment and network**
- **Application of emergency response**

Communication equipments

The maritime satellite terminal is the important communication equipment of the rescue team of China.



交通部部长张春贤视察北京海事卫星地面站
The Minister of the Ministry of Communication (MOC) Zhang Chunxian was inspecting Beijing Land Earth Station (LES).

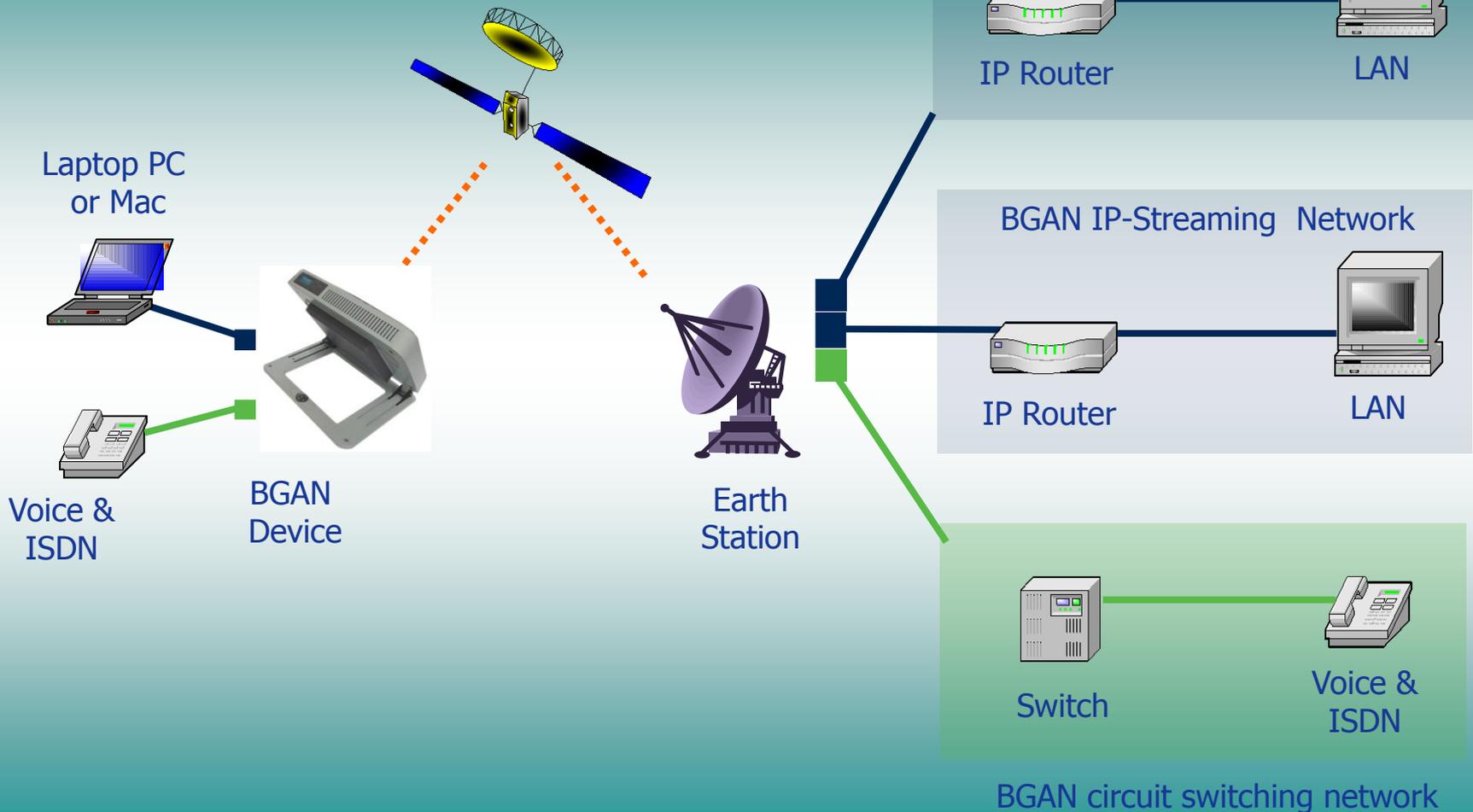
Communication equipments

- ❖ **Satellite mobile phone**
 - **Adaptable to individual voice communication**
- ❖ **Satellite data terminal**
 - **Portable equipment and the smallest is 1 kg**
 - **492 high-speed data**
 - **256kbit/s video image**
- ❖ **Vehicle-mounted satellite terminal**
 - **Omnidirectional antenna**
 - **Communication in moving**
 - **Voice, data and image**



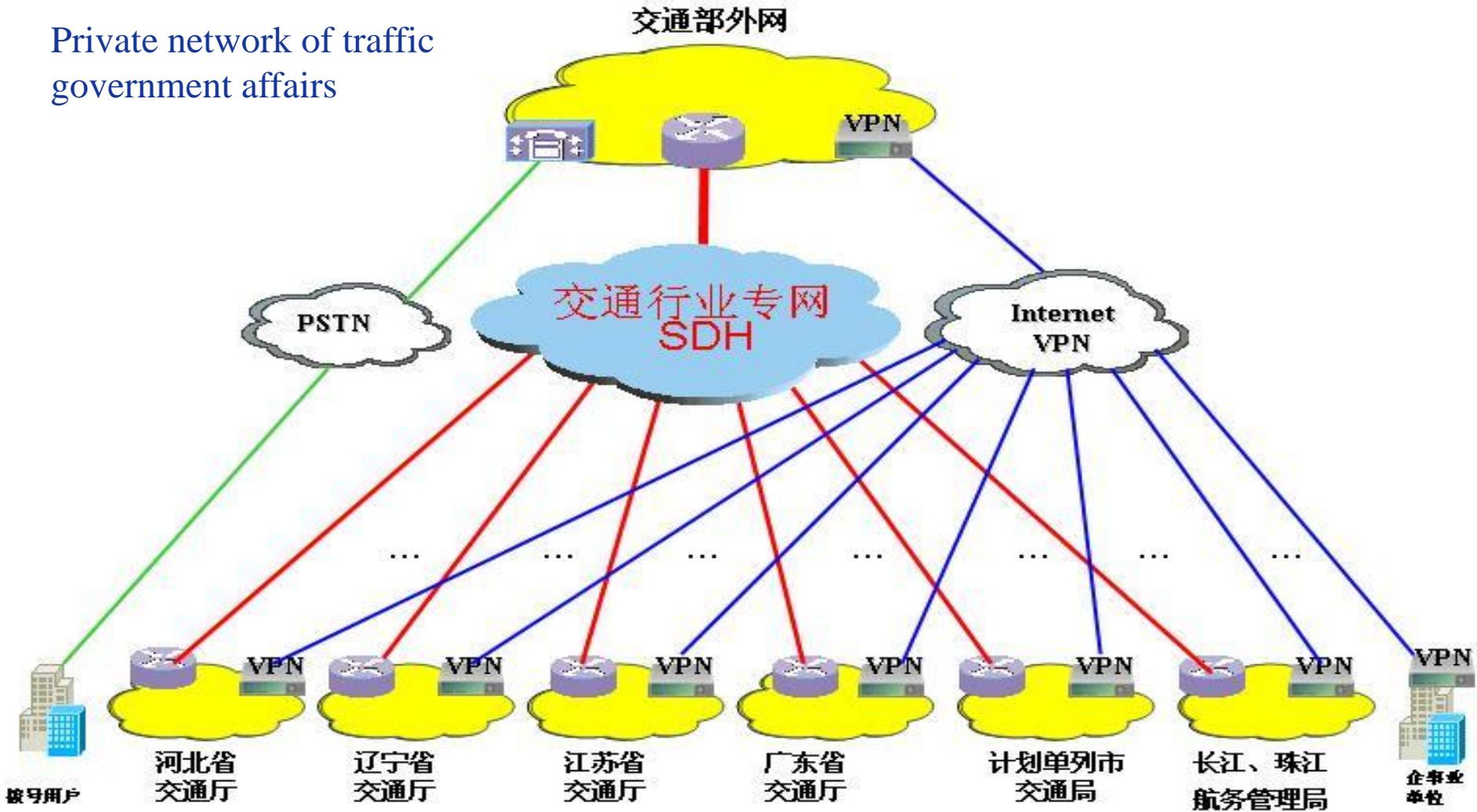
Communication equipments

BGAN: One equipment and three kinds of networks

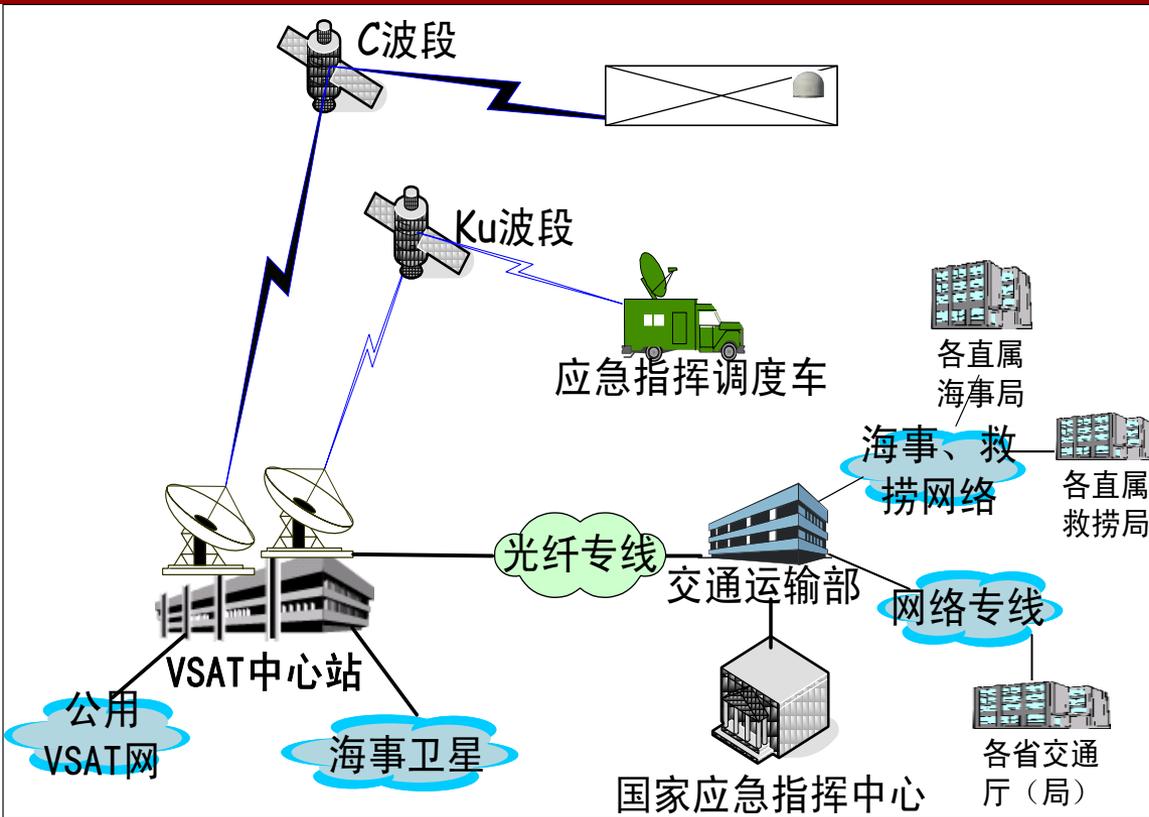


Communication network

Private network of traffic government affairs



Communication network



Special VSAT for transport

天地一体化信息通信网



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Application



The first image of earthquake area sent by the maritime satellite equipment during Wenchuan earthquake.

All other communication ways have been interrupted after Wenchuan earthquake and finally the outside world has successfully established contact with the earthquake area through the maritime satellite equipments.

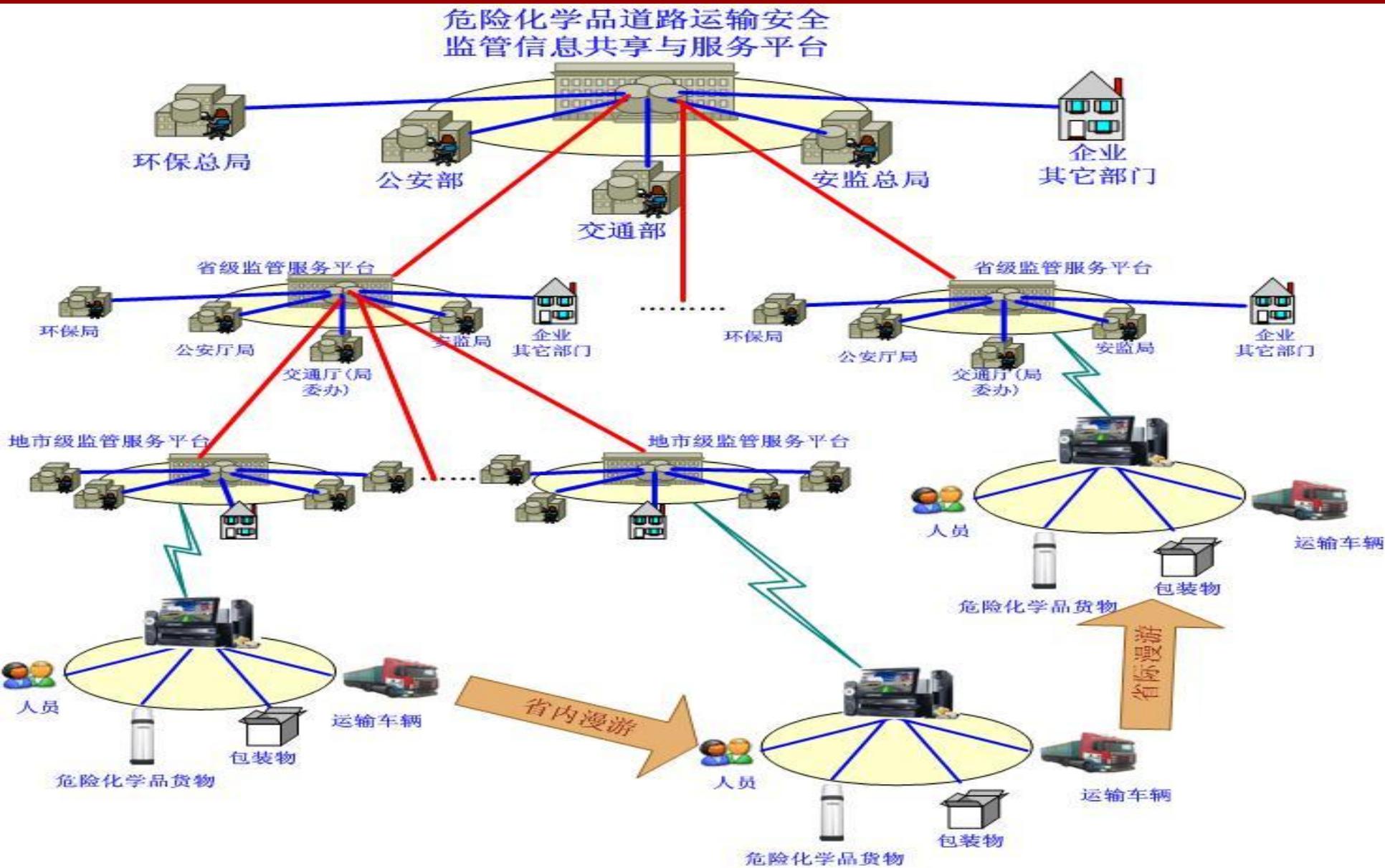


Application

- ❖ **Communication center of the Ministry of Transport**
 - **Release 1000 satellite phones to Wenchuan earthquake disaster area**
 - **Provide direct service support for more than 2500 terminals**
 - **Coordinate the network resources: the capacity has expanded by more than 10 times**
 - **Dispatch more than 10 professional engineers to support the disaster area**
 - **Provide all business data and 24-hour customer service as well as the emergency power supply**



Application



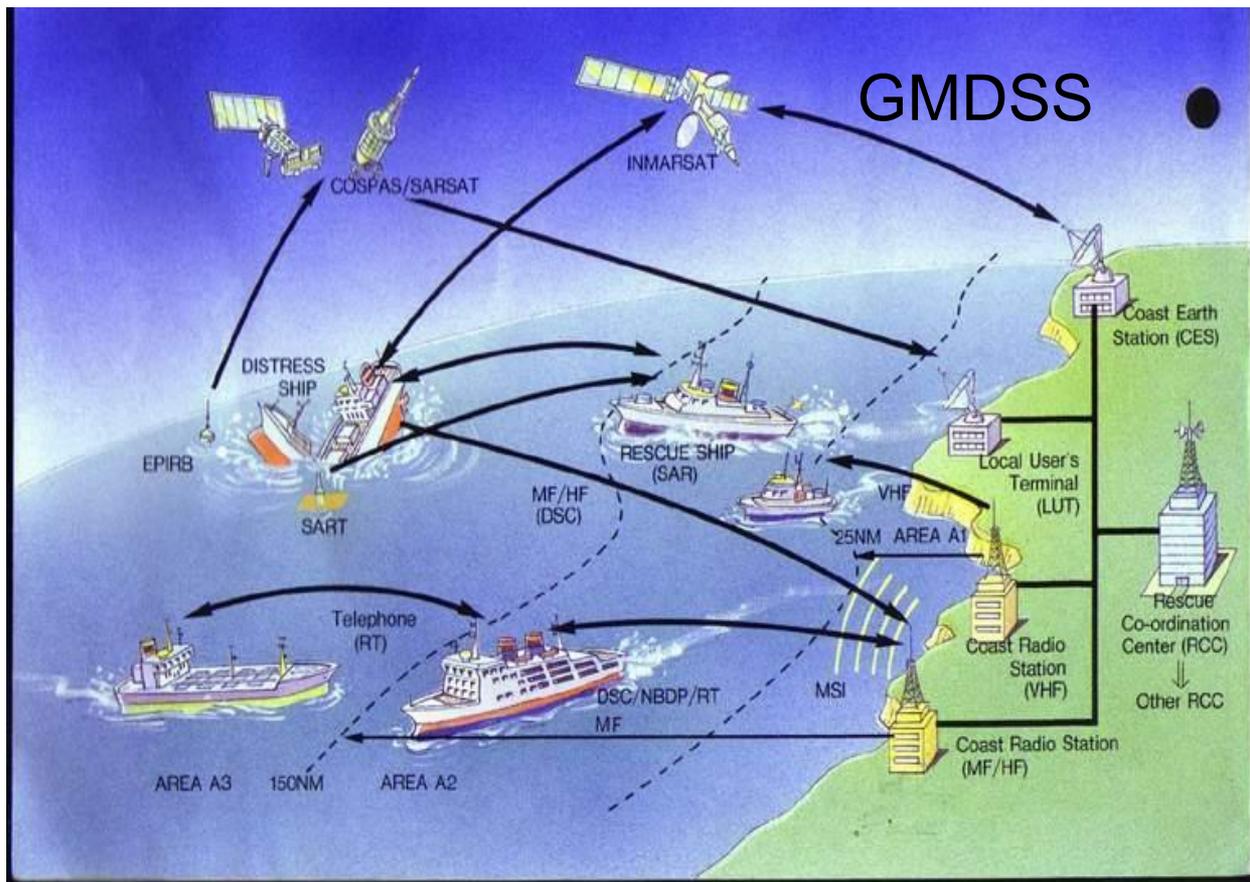
Application

The “3.29” extra-serious accident of liquefied chlorine leakage on the Huai’an section of Beijing-Shanghai expressway in 2005, 29 persons died, 456 persons were poisoned and more than 10500 persons were evacuated.



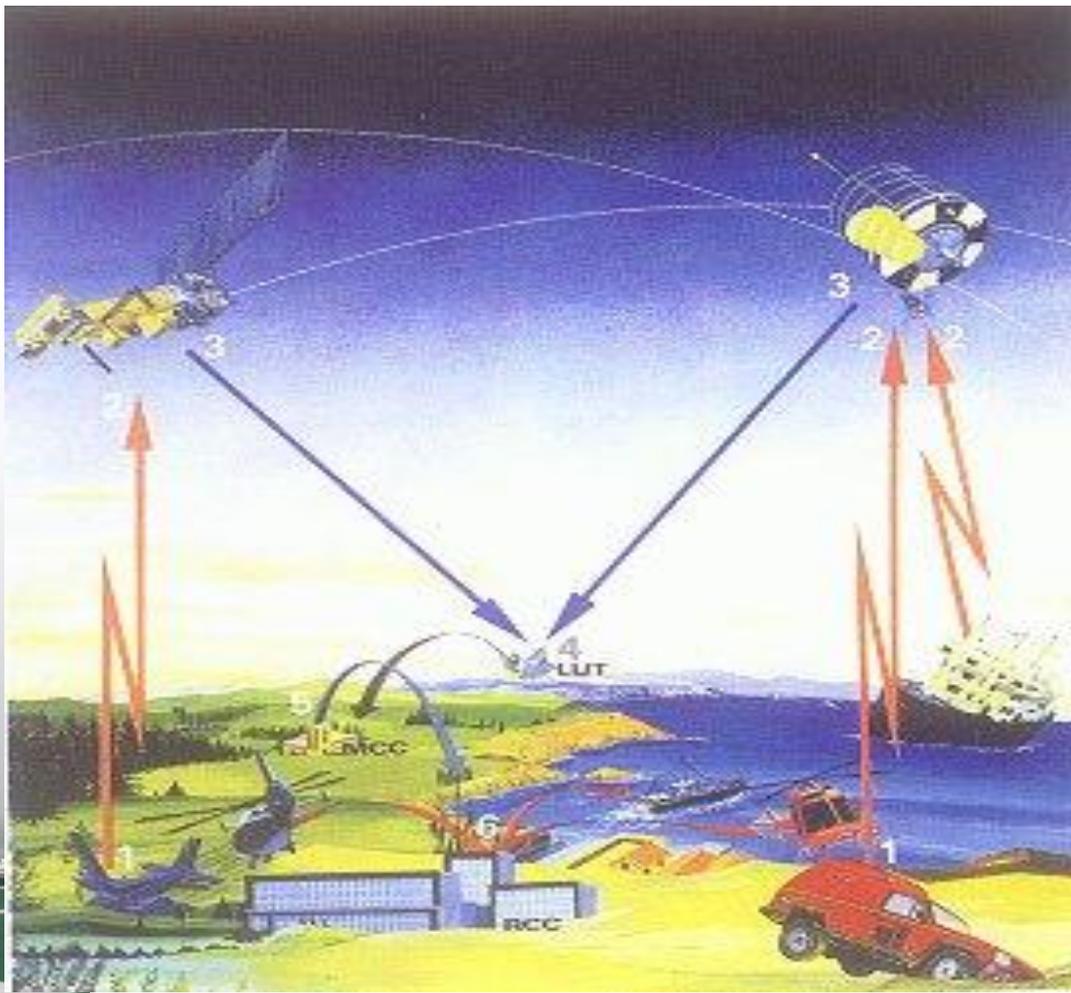
Application

Coast station



Application

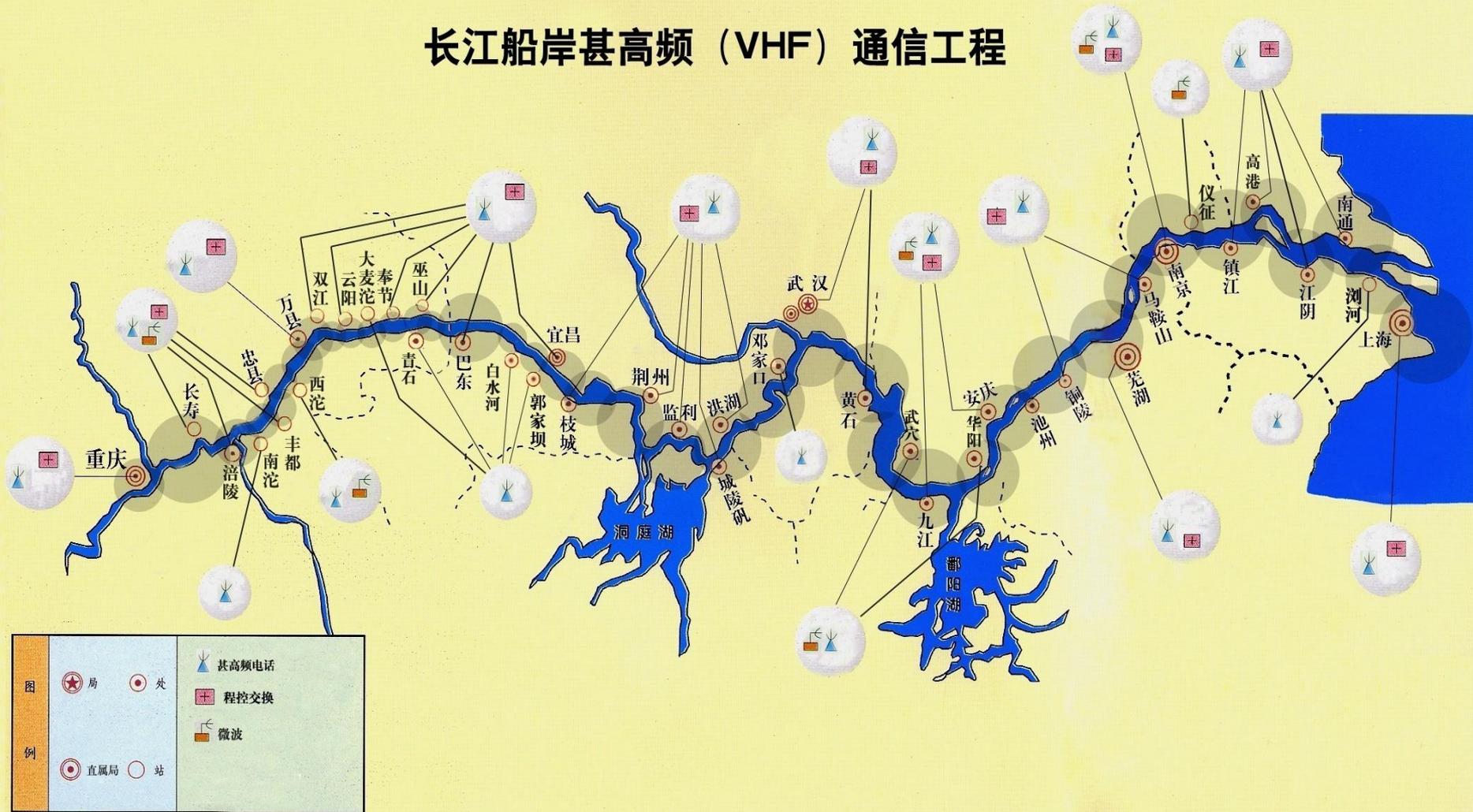
Search and rescue through satellite positioning



Application

Communication on the Yangtze River

长江船岸甚高频 (VHF) 通信工程



Emergency response communication

- ❖ **After the construction of many years, the transport information communication has developed to the current comprehensive information communication way with ground communication, satellite mobile communication, highway communication and private communication of government affairs for ministry departments, has formed the space-ground integrated traffic communication system of water, land and space and has played huge role in highway and waterway transport industry.**

Thanks